

Colorado Department of Health

Hazardous Materials & Waste Management Division

Comments

on

CHEMICAL SPECIFIC BENCHMARK TABLES

March 10, 1993

General Comments:

1. The Division previously suggested combining Table C and Table D into one "State Surface Water Quality Standards Table." If DOE chooses to leave these tables separate, then an "Organics" column containing standards from Table 1A in §3.8.0 (5 CCR 1002-8) must be added to Table D. Table 1A is an amendment to the basin standards for Big Dry Creek which became effective March 30, 1993.
2. Including a column listing the CAS numbers for each analyte would avoid possible confusion caused by some compounds having alternative names.
3. All six tables have footnotes which refer to "Attachment 1" which is not included in the OU work plans. These footnotes should, therefore, be modified.
4. EPA Method 300 (Ion Chromatography) is recommended to replace the various anion methods which are specified in Tables A through E. Method 300 utilizes ion exchange chromatography to separate anions from other anions in the same matrix. A single analytical run in method 300 would replace all of the individual methods for each target anion; therefore, costs will be minimized. Sample manipulation errors will be minimized, and as a consequence, accuracy and precision will be maximized.
5. The Division recommends that CLP not be the default analytical methods. CLP methods are not designed to handle interfering contaminants such as may be present at industrialized sites. Additional reasons are listed in comments on the document, "A Managed Approach to Developing Analytical Programs, Site Characterization, and Regulatory Benchmarks."

Specific Comments:

1. Page 3-1 The text preceding the tables twice refers to "Tables 3.1 through 3.4." This reference should read "Tables A through E."
2. Page 3-1 The second and third paragraphs of text state that Practical Quantitation Limits (PQLs) are listed in the tables. This was true of earlier versions of the Benchmark Tables, but they are not in the current version. Since PQLs (or in some cases MDLs) are considered to be the compliance level when a standard is lower than the PQL, including these values would be useful. However, the definition of PQLs as stated in the introduction of the December 16, 1992 version conflicts with the explanation contained in Table 1A (5 CCR 1002-8, Section 3.8.0). Footnote 5 in Table 1A says that the PQL is the lowest detection level if a statewide PQL does not exist, whereas the Benchmark Table introduction defines a PQL "as 10 times the EPA published Method Detection Limit (MDL) when not otherwise published."
3. Page 3-3 The sources listed on this page include CDH, WQCC groundwater

standards, but not surface water standards (5 CCR 1002-8, Sections 3.1.0 and 3.8.0)

4. Page A-3 Please resolve the discrepancy in the SDWA Maximum Contaminant Levels listed for $^{226}\text{Ra} + ^{228}\text{Ra}$ between Table A and Table B.

5. Page A-3 Some discrepancies exist between some parameters in this table and those in other tables. These differences are highlighted in the following list:

- Benzyl Alcohol
- bis(2-Chloroethoxy)methane
- bis(2-Chloroethyl)ether
- bis(Chloromethyl)ether
- bis(2-Chloroisopropyl)ether
- bis(2-Ethylhexyl)phthalate

6. Pages A-3, B-5, C-4, and D-5 "Chlorinated Naphthalenes" is misspelled.

7. Page C-1 The designation of ammonia as "total" applies to domestic water supply value only, not for the entire row.

8. Page C-1 The units for asbestos (fibers/L) should follow the name in the parameters column. The statewide standard for asbestos in domestic water supplies is 30,000 fibers/L.

9. Page C-2 The value for Chlordane in the "Water and Fish" column should be 0.00058 $\mu\text{g/l}$.

10. Page C-4 "bis(Chloromethyl)ether" is missing from the parameter column.

11. Page C-6 Endnote (3) should be modified to state, "All are 30-day values except nitrate + nitrite, nitrite, and cyanide."

12. Page C-6 The last part of endnote (7) is missing. Add the phrase "...the standard is interpreted consistently for surface and ground waters."

13. Page D-1 The 4 $\mu\text{g/l}$ Stream Segment standard for beryllium is a chronic value and should not be listed under the acute column.

14. Page D-2 The acute and chronic values for Chromium VI are TVSSs.

15. Pages D-3 and D-5 The parameter column needs to be widened to allow for several lengthy names.

16. Page D-7 Contrary to CDH's previous comments, "Tetrachloroethane" should not be shown as "1,1,2,2-Tetrachloroethane", nor "Trichloroethane" as "1,1,1-Trichloro-ethane." The last eight parameters listed in Table D should therefore be:

- Styrene
- Tetrachloroethanes
- Tetrachloroethene
- Toluene
- Trichloroethanes
- Trichloroethene
- Vinyl Acetate
- Xylenes (Total)

17. Page D-8 Several endnotes are cutoff.

18. Pages E-3 and E-4 The units listed in the Parameter column are wrong. They should either be changed to pCi/g, or left out of that column and added to the appropriate standards.